

Project 2 Shermer Road Overflow Sewer



Illinois and Shermer Intersection



Grainger Parking Lot

PROJECT 2 SHERMER ROAD OVERFLOW SEWER

Statement of Conditions:

The 50+ year old drainage system (Northbrook Manor Subdivision, recorded 1926) and its outlets, consisting of a combination of ditches, culverts and storm sewers, was intended to carry low flow runoff based on older, less stringent design standards. Over the years, runoff has increased due to properties being developed and redeveloped, and the system has been modified, often through individual, isolated efforts. The system cannot adequately convey runoff from storms of moderate to high intensities. The conveyance capacity of the drainage system is further reduced when WFNBCR is at flood stage.

The physical barrier formed by the METRA railroad embankment causes flood overflows to be funneled through the Cattle Pass structure located in the embankment. There is no other overland flood flow path to the WFNBCR for the almost one square mile Illinois Road Watershed. The 1999 Cattle Pass Stormwater Relief Swale was constructed to route flood overflows around Northbrook Manor Subdivision, rather than through it.

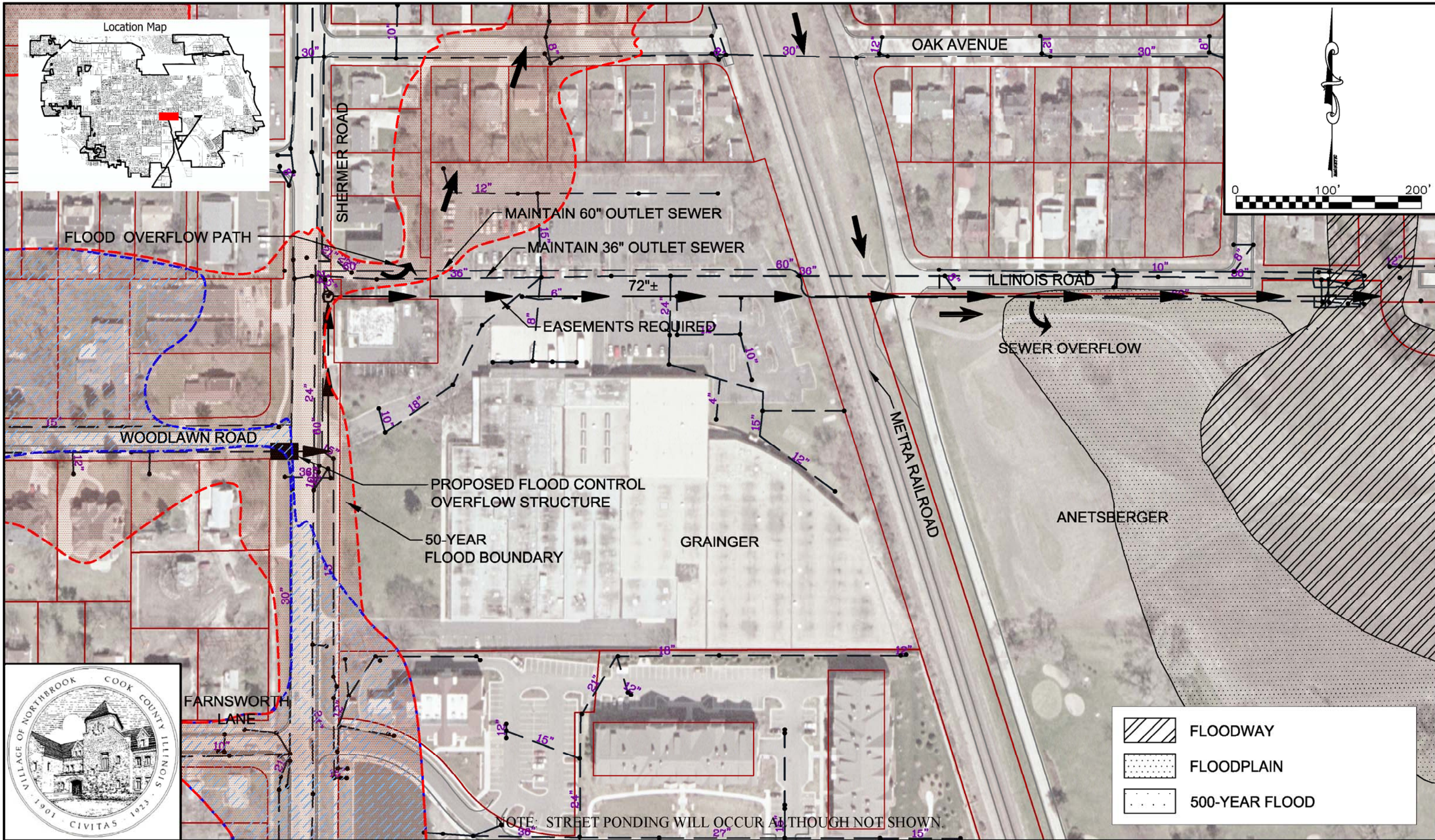
Problem Identification:

Street, parking lot, front yard, back yard, side yard and structure flooding

Recommended Plan:

- Improve flood overflow conveyance path by constructing a flood relief storm sewer from Shermer Road to the WFNBCR through the Grainger property. (Drainage easement through Grainger to be obtained at the time that the property redevelops)
- Construct flood overflow junction chamber at Shermer Road

Estimated Total Cost	Construction Cost	Property Cost	Engineering Cost	B/C Ratio	Optimum Protection
\$1,327,000	\$1,145,000	N/A	\$182,000	1.92	50-yr



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